ABSTRACT OF THE DISCLOSURE

The present invention relates to isolated proteins or polypeptides of grapevine leafroll virus (type 2). The encoding DNA molecules either alone in isolated form or in an expression system, a host cell, or a transgenic grape plant are also disclosed. Other aspects of the present invention relates to a method of imparting grapevine leafroll resistance to grape and tobacco plants by transforming them with the DNA molecules of the present invention, a method of imparting beet yellows virus resistance to a beet plant, a method of imparting tristeza virus resistance to a citrus plant, and a method of detecting the presence of a grapevine leafroll virus, such as GRLaV-2, in a sample.